

Linux Audio Conference 2013

- Keynote

Marije Baalman

9 mei 2013

- ▷ Introduction
- Gender
- Projects
- Performance and technology
- Tools and creativity
- Back to the Linux Audio world

Introduction

Gender

Introduction

- ▷ Gender Projects

Performance and technology

Tools and creativity

Back to the Linux Audio world



Gender

Introduction

- ▷ Gender Projects

Performance and technology

Tools and creativity

- Back to the Linux Audio world



Gender

Introduction

- ▷ Gender Projects

Performance and technology

Tools and creativity

- Back to the Linux Audio world



Gender

Introduction

- ▷ Gender Projects

Performance and technology

Tools and creativity

Back to the Linux Audio world



Gender

Introduction

- ▷ Gender Projects

Performance and technology

Tools and creativity

Back to the Linux Audio world



Gender

Introduction

- ▷ Gender Projects

Performance and technology

Tools and creativity

Back to the Linux Audio world



Gender

Introduction

- ▷ Gender
Projects

Performance and technology

Tools and creativity

- Back to the Linux
Audio world



Gender

Introduction

- ▷ Gender Projects

Performance and technology

Tools and creativity

- Back to the Linux Audio world



Gender

Introduction

- ▷ Gender Projects

Performance and technology

Tools and creativity

- Back to the Linux Audio world



Gender

Introduction

- ▷ Gender Projects

Performance and technology

Tools and creativity

- Back to the Linux Audio world



Gender

Introduction

- ▷ Gender
Projects

Performance and technology

Tools and creativity

- Back to the Linux
Audio world



Projects



Introduction

- Gender
- ▷ Projects

Performance and technology

Tools and creativity

- Back to the Linux
- Audio world

Projects

Introduction

Gender

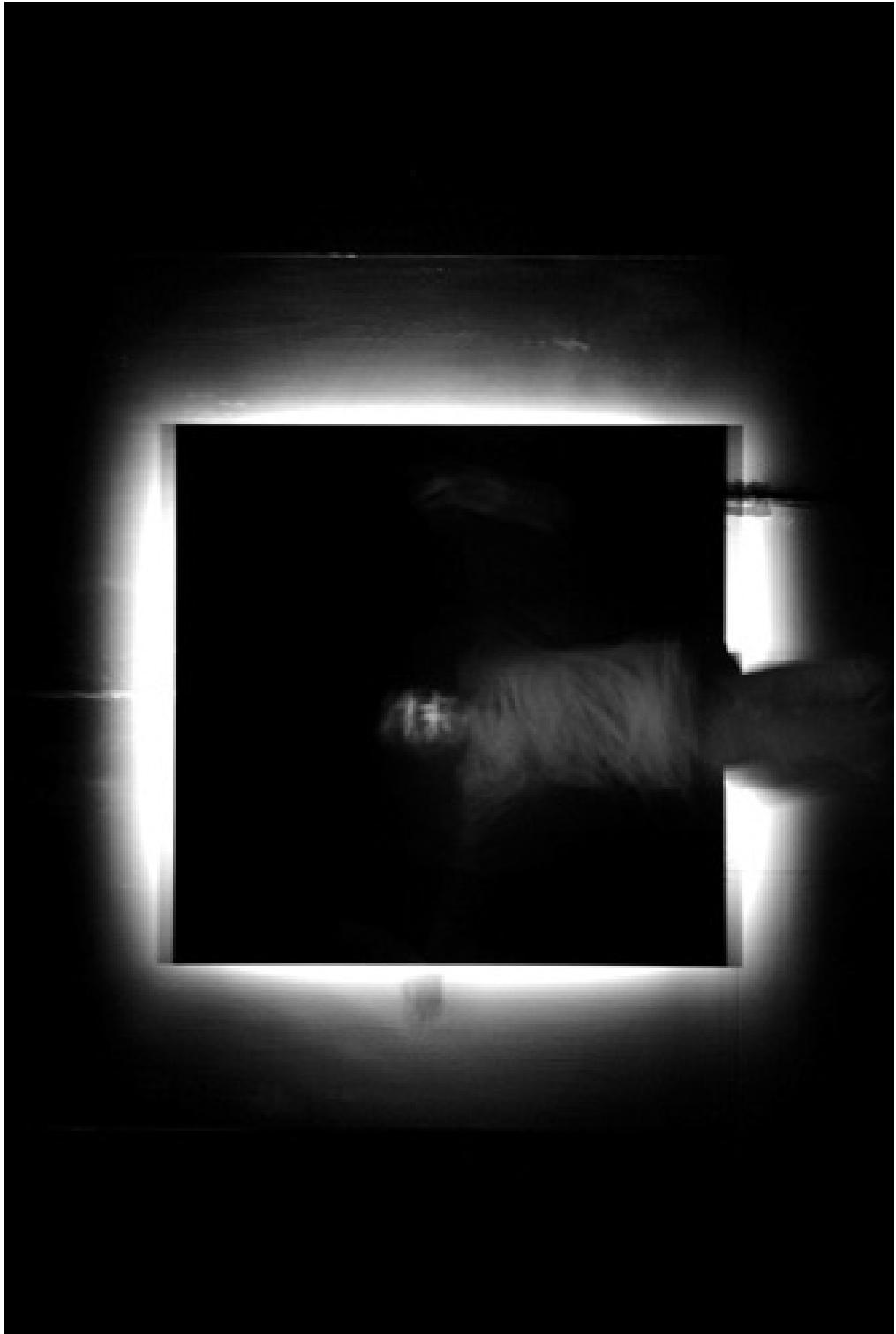
▷ Projects

Performance and technology

Tools and creativity

Back to the Linux

Audio world



Projects

Introduction

Gender
▷ Projects

Performance and
technology

Tools and creativity

Back to the Linux
Audio world



Projects

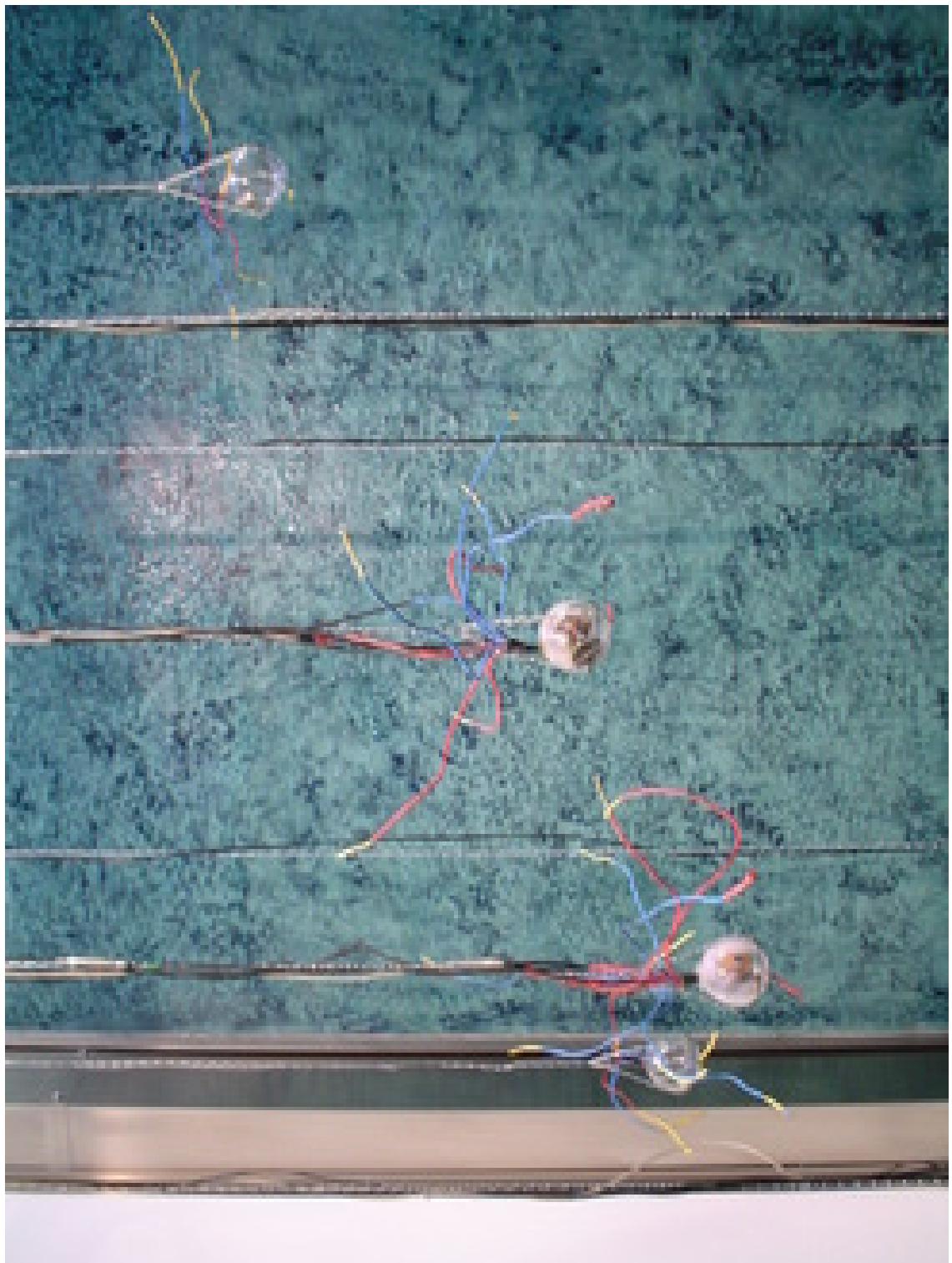
Introduction

Gender
▷ Projects

Performance and
technology

Tools and creativity

Back to the Linux
Audio world



Projects

[Introduction](#)

[Gender](#)

[Projects](#)

[Performance and
technology](#)

[Tools and creativity](#)

[Back to the Linux](#)

[Audio world](#)



Projects



Introduction

Gender

▷ Projects

Performance and
technology

Tools and creativity

Back to the Linux
Audio world

Projects

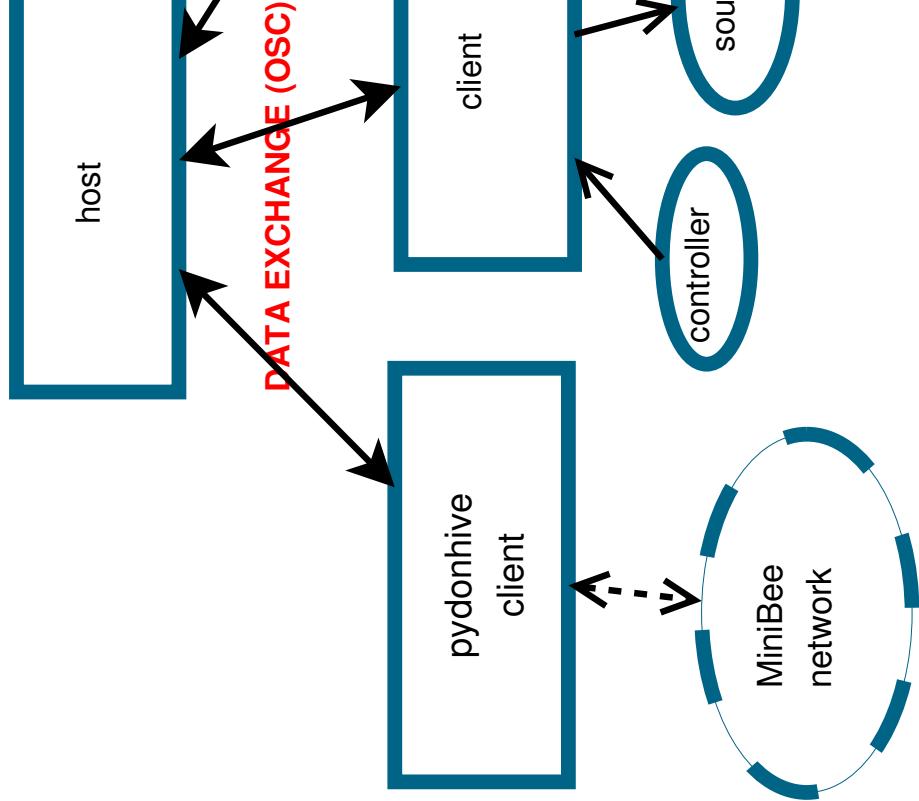
Introduction

Gender
▷ Projects

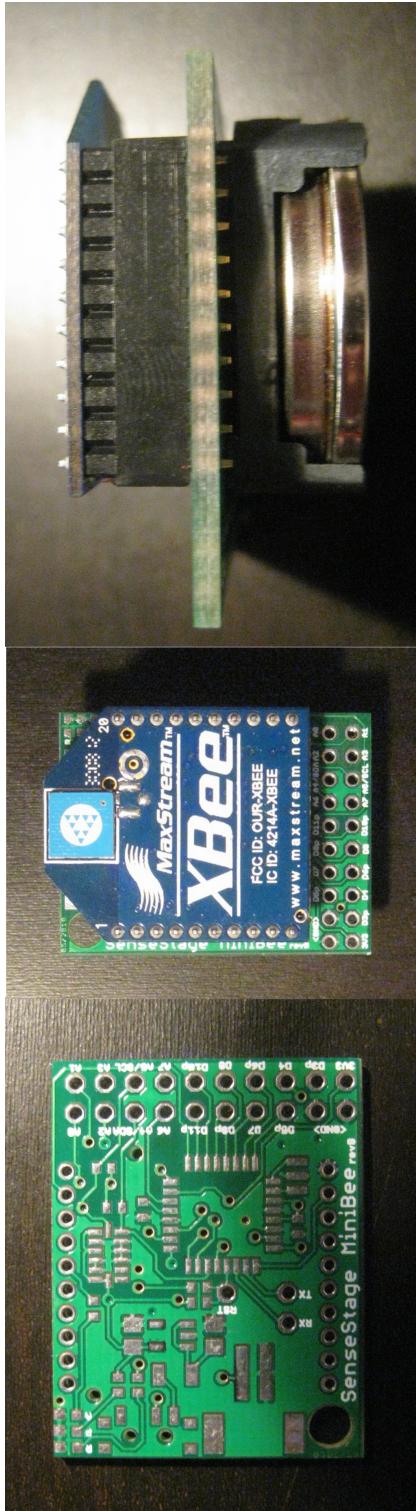
Performance and
technology

Tools and creativity

Back to the Linux
Audio world



Projects



Introduction

Gender
▷ Projects

Performance and
technology

Tools and creativity

Back to the Linux
Audio world

Projects

Introduction

Gender

▷ Projects

Performance and
technology

Tools and creativity

Back to the Linux
Audio world



Projects

Introduction

Gender

▷ Projects

Performance and
technology

Tools and creativity

Back to the Linux
Audio world



Projects

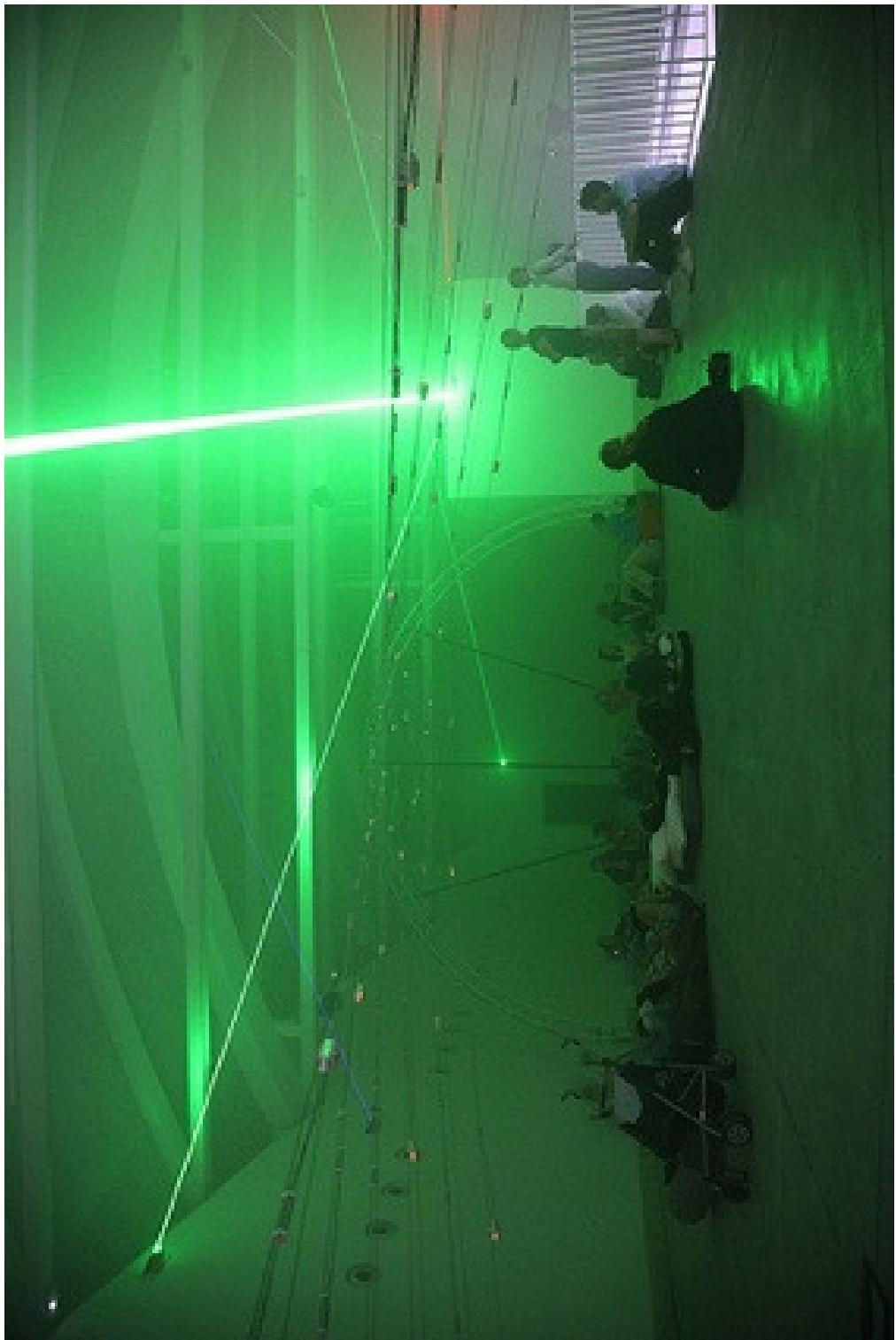
Introduction

Gender
▷ Projects

Performance and technology

Tools and creativity

Back to the Linux
Audio world



Projects

Introduction

Gender

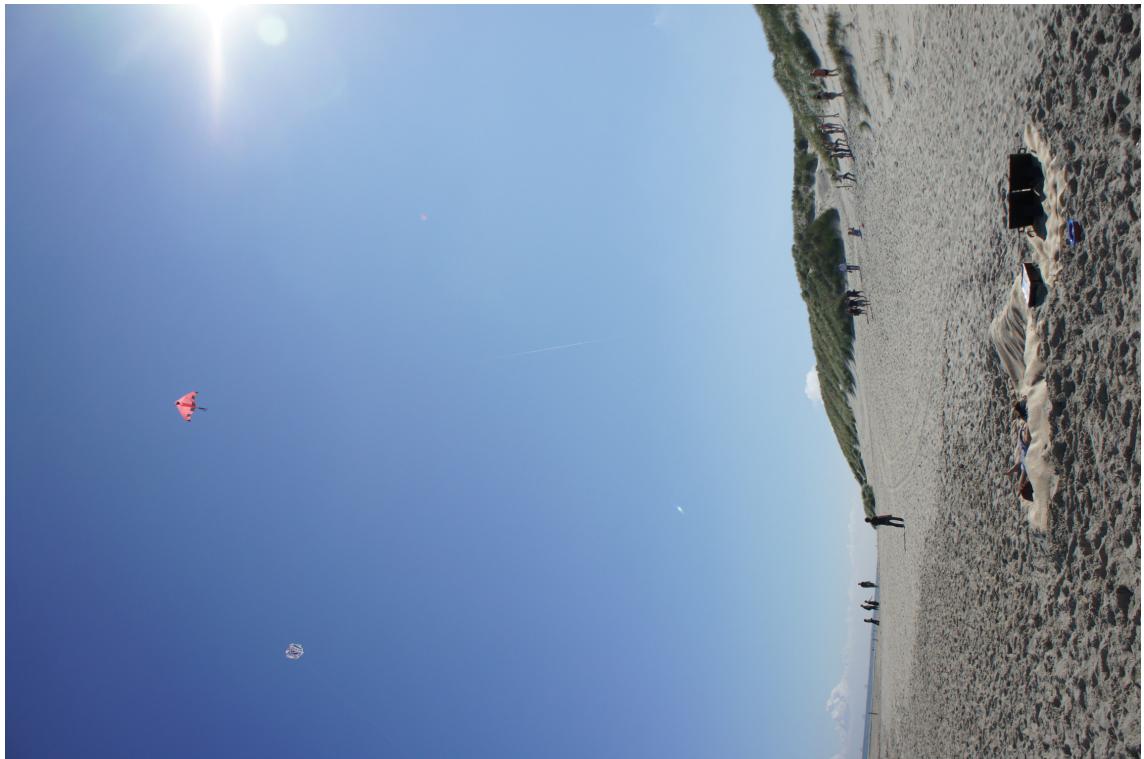
▷ Projects

Performance and
technology

Tools and creativity

Back to the Linux

Audio world



Projects

Introduction

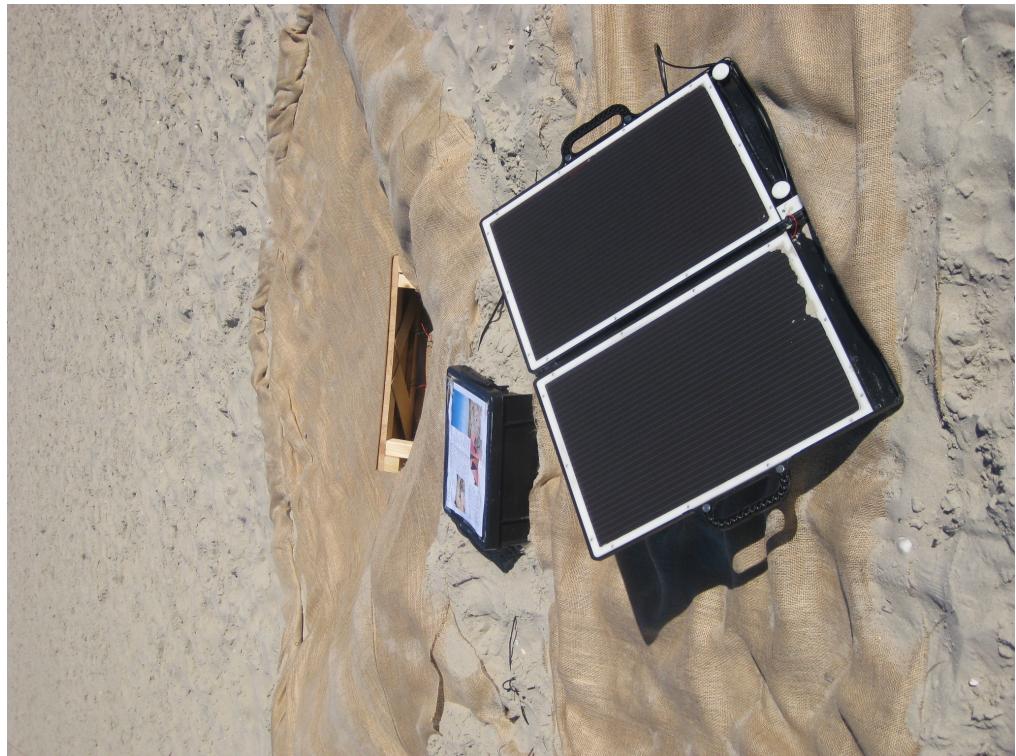
Gender

▷ Projects

Performance and
technology

Tools and creativity

Back to the Linux
Audio world



Projects

Introduction

Gender

▷ Projects

Performance and
technology

Tools and creativity

Back to the Linux
Audio world



Introduction

Performance and
▷ technology

Performance

Interactive

performance

Changing views

Tools and creativity

Back to the Linux
Audio world

Performance and technology

Performance

- Introduction Traditional role divisions
- Performance and technology Director, choreographer
- ▷ Performance Dancers, actors, musicians
- Interactive performance “Tech” people
- Changing views

- Tools and creativity

- Back to the Linux
- Audio world

Performance

- Introduction
 - Traditional role divisions
 - Director, choreographer
 - Dancers, actors, musicians
 - “Tech” people
- Performance and technology
 - The use of technology is highly standardized
 - Technology is added to the production in the last stage
 - And this is not considered as part of the “creative, artistic” process
- ▷ Performance
- Interactive performance
- Changing views
- Tools and creativity
 - Back to the Linux Audio world

Interactive performance

Introduction
Performance and
technology

This division and strictly divided paradigm does not hold in the case of (technologically aided) interactive works.

Performance

▷ performance

Changing views

Tools and creativity

Back to the Linux
Audio world

- Interactivity has to be considered early on in the development of the piece
- Sensing and media design have to be developed in close relationship with the performance
- During performance one needs to be able to improvise, not just the performers on stage, but also with the technology.

Interactive performance

<u>Introduction</u>
<u>Performance and technology</u>
<u>Performance</u>
Interactive
▷ performance
Changing views
<u>Tools and creativity</u>
Back to the Linux
Audio world

This division and strictly divided paradigm does not hold in the case of (technologically aided) interactive works.

- Interactivity has to be considered early on in the development of the piece
- Sensing and media design have to be developed in close relationship with the performance
- During performance one needs to be able to improvise, not just the performers on stage, but also with the technology.

Mastering this kind of technology is not different from training long years to learn how to dance, play a violin or whatever.

Interactive performance

<u>Introduction</u>
Performance and technology
Performance
Interactive
▷ performance
Changing views
Tools and creativity
Back to the Linux
Audio world

This division and strictly divided paradigm does not hold in the case of (technologically aided) interactive works.

- Interactivity has to be considered early on in the development of the piece
- Sensing and media design have to be developed in close relationship with the performance
- During performance one needs to be able to improvise, not just the performers on stage, but also with the technology.

Mastering this kind of technology is not different from training long years to learn how to dance, play a violin or whatever. For someone to take over my part in some of these productions requires as much training and learning to familiarize oneself with a piece to take it over, as it would take a musician or dancer to take over. You don't change (stage) performers on a show-by-show basis.

Changing views

Introduction

Performance and
technology

Performance

Interactive

performance

▷ Changing views

Tools and creativity

Back to the Linux
Audio world

The traditional view on what the roles of artists and technicians
are in such media-rich performance situations need to change.

Changing views

Introduction

Performance and
technology

Performance
Interactive

performance
▷ Changing views

Tools and creativity

Back to the Linux
Audio world

The traditional view on what the roles of artists and technicians
are in such media-rich performance situations need to change.

Similar situations happen in music - where composers have their
pieces realised in software by other people.

Changing views

- Introduction
- Performance and technology
- Performance
- Interactive performance
- ▷ Changing views
- Tools and creativity
- Back to the Linux Audio world

The traditional view on what the roles of artists and technicians are in such media-rich performance situations need to change.

Similar situations happen in music - where composers have their pieces realised in software by other people.

Sometimes even to the extent that this person is not credited at all - whereas that person should be credited in the same manner as a (traditional) musician is credited for performing a piece.

Introduction

Performance and
technology

Tools and
▷ creativity

Work in progress -
the process of
creation

Culture?
Creativity and
programming

Back to the Linux
Audio world

Tools and creativity

Work in progress - the process of creation

Introduction

Performance and
technology

Tools and creativity

Work in progress
- the process of
creation

▷ Culture?

Creativity and
programming

Back to the Linux
Audio world

Throughout the process of realisation, you adapt the original concept to what is actually possible, and at times you find new directions that you did not think of before.

Work in progress - the process of creation

Introduction

Performance and
technology

Tools and creativity

Work in progress
- the process of

▷ creation

Culture?

Creativity and
programming

Back to the Linux

Audio world

Throughout the process of realisation, you adapt the original concept to what is actually possible, and at times you find new directions that you did not think of before.

During the process you gain intricate knowledge of the stuff you are working with, you learn to manipulate it, you learn to push it to its boundaries, and transcend its limitations.

Work in progress - the process of creation

Introduction

Performance and
technology

Tools and creativity

Work in progress
- the process of
▷ creation

Culture?
Creativity and

programming

Back to the Linux
Audio world

Throughout the process of realisation, you adapt the original concept to what is actually possible, and at times you find new directions that you did not think of before.

During the process you gain intricate knowledge of the stuff you are working with, you learn to manipulate it, you learn to push it to its boundaries, and transcend its limitations.

More often than not, while coding in an artistic context the purpose of the software is not known beforehand. Writing the software is part of the process of figuring out how you want to express an idea, and exploring the idea.

Culture?

Introduction

Performance and
technology

Tools and creativity

Work in progress -
the process of
creation

▷ Culture?

Creativity and
programming

Back to the Linux
Audio world

Popular culture makes us believe that art comes forth out of emotion and inspiration, while engineering is viewed as **straight-forward and based on rational thinking**.

Culture?

Introduction

Performance and
technology

Tools and creativity

Work in progress -
the process of
creation

▷ Culture?

Creativity and
programming

Back to the Linux
Audio world

Popular culture makes us believe that art comes forth out of emotion and inspiration, while engineering is viewed as **straight-forward and based on rational thinking**.

But what about the rigorous training of performers
(dancers/musicians) versus the rigour of engineering schools?

Culture?

Introduction

Performance and technology

Tools and creativity

Work in progress -
the process of
creation

▷ Culture?

Creativity and
programming

Back to the Linux
Audio world

In more 'artistic' terms, you might consider the operating system to be the collection of pigments and colours used to create a painting: they are not the painting itself, but they are obviously a rather important ingredient - a lot of the great painters spent a large portion of their time on making the paint, often by hand, in order to get their painting to look just right.

(Linus Torvalds, 2003 - upon receiving the Ars Electronica first prize
- recited from Thor Magnusson, "Expression and time: the question of
strata and time management in creative practices using technology" -
FOSS+Art)

Culture?

Introduction

Performance and
technology

Tools and creativity

Work in progress -
the process of
creation

▷ Culture?

Creativity and
programming

Back to the Linux
Audio world

Popular culture makes us believe that art comes forth out of emotion and inspiration, while engineering is viewed as **straight-forward and based on rational thinking**.

But what about the rigorous training of performers (dancers/musicians) versus the rigour of engineering schools?

How is that different from a “digital” artist creating her own hardware and software, developing tools to mold these materials, to express concepts and ideas in this medium?

Creativity and programming

Introduction

Performance and
technology

Tools and creativity

Work in progress -
the process of
creation

Culture?

Creativity and
▷ programming

Back to the Linux

Audio world

This can lead to the bizarre situation where programmers make commercial software which practically generates music, and yet somehow the users of the software are seen as being more creative than the programmers. Here the programmers encode their musical style in the software, and the users go little beyond guiding the software to a destination pleasing to them. This can be seen in filters and plugins of music studio software as well as explicitly generative commercial applications such as Sseyo Koan Pro. The creativity of programmers is tapped into flattery of paying users.

(Alex McLean - "Live coding for free" - FLOSS+Art)

Introduction

Performance and
technology

Tools and creativity

Back to the Linux

▷ Audio world

A multitude of
viewpoints

Current challenges
and contexts

Acknowledgements

Back to the Linux Audio world

A multitude of viewpoints

Introduction
Performance and technology
Tools and creativity
Back to the Linux Audio world
A multitude of viewpoints
Current challenges and contexts
Acknowledgements

Linux Audio offers:

- a multitude of different programs, pieces of software to do an enormous amount of different things
- a base framework to interconnect all these unique tools to make your own unique mix of them
- and the possibility to study other people's tools in depth
- before creating and building your own tools

A multitude of viewpoints

Introduction
Performance and technology
Tools and creativity
Back to the Linux Audio world
A multitude of viewpoints
Current challenges and contexts
Acknowledgements

Linux Audio offers:

- a multitude of different programs, pieces of software to do an enormous amount of different things
- a base framework to interconnect all these unique tools to make your own unique mix of them
- and the possibility to study other people's tools in depth
- before creating and building your own tools

And that is why this conference is so great as a meeting place for us to discuss and exchange our ideas and concepts, to share our tools, and to come up with new ones.

A multitude of viewpoints

- [Introduction](#)
- [Performance and technology](#)
- [Tools and creativity](#)

- [Back to the Linux Audio world](#)
- A multitude of viewpoints
 - ▷ viewpoints
 - Current challenges and contexts
- [Acknowledgements](#)

The closer the software is to the daily needs and work methods of programmers and system administrators, the higher typically its quality.

(<http://www.nettime.org>List-Archives/nettime-1-0610/msg00025.html>
- recited from Michael van Schaik, "The shrink-wrapped design process", FLOSS+Art)

A multitude of viewpoints

<u>Introduction</u>
Performance and technology
Tools and creativity
Back to the Linux
Audio world
A multitude of viewpoints
▷ viewpoints
Current challenges and contexts
Acknowledgements

The closer the software is to the daily needs and work methods of programmers and system administrators, the higher typically its quality.

Back to the Linux
(<http://www.nettime.org>List-Archives/nettime-1-0610/msg00025.html>
- recited from Michael van Schaik, "The shrink-wrapped design process", FLOSS+Art)

We are programmers, tool or instrument makers, musicians and artists - the boundaries between these terms are arbitrary and are losing its meaning.

Current challenges and contexts

Introduction

Performance and
technology

Tools and creativity

Back to the Linux
Audio world

A multitude of
viewpoints

Current
challenges and
contexts

Acknowledgements

In the current “popular” computer environment we see a shift to mobile computing - the fashion of “apps”. With questions of freedom and privacy (app-store lockin, remote control over devices, big data) - which also start to affect computing on personal computers.

Current challenges and contexts

- Introduction
- Performance and technology
- Tools and creativity
- Back to the Linux Audio world
- A multitude of viewpoints
- Current challenges and contexts
- Acknowledgements

In the current “popular” computer environment we see a shift to mobile computing - the fashion of “apps”. With questions of freedom and privacy (app-store lockin, remote control over devices, big data) - which also start to affect computing on personal computers.

DIY culture with open source hardware platforms such as BeagleBoard, Raspberry Pi, and so on.

Current challenges and contexts

Introduction

Performance and technology

Tools and creativity

Back to the Linux
Audio world

A multitude of
viewpoints

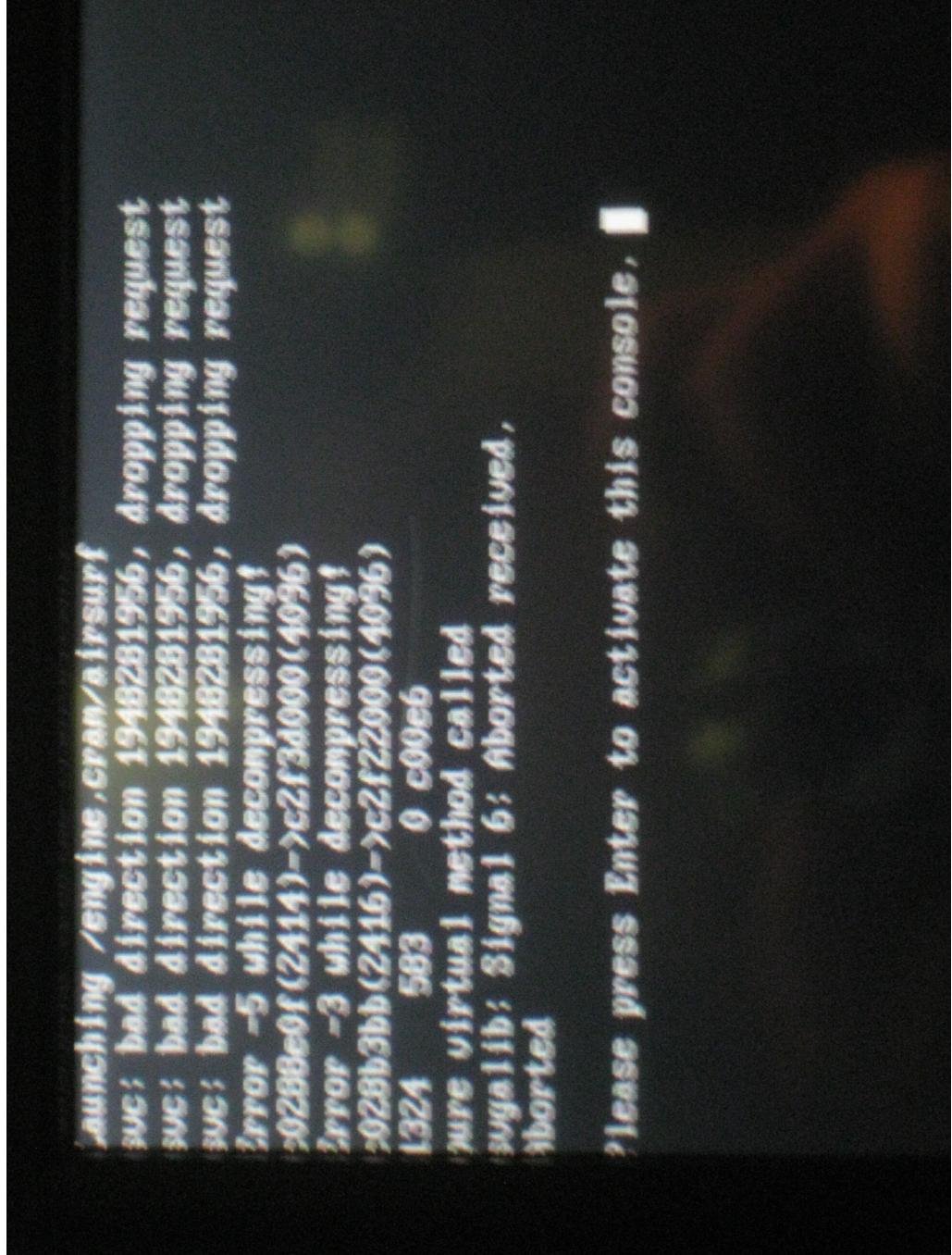
Current
challenges and
contexts

Acknowledgements

```
launching /engine,span/airsurf
sync: bad direction 1948281956, dropping request
sync: bad direction 1948281956, dropping request
sync: bad direction 1948281956, dropping request
error -5 while decompressing!
20298e0f(2414)->c2f3d000(4096)
error -3 while decompressing!
2029b3bb(2416)->c2f22000(4096)
1324 5b3 0 e99eb
pure virtual method called
signal lib: signal 6: aborted received,
aborted
```

Please press Enter to activate this console, █

And other contexts outside of the desktop environment:



Current challenges and contexts

- [Introduction](#)
- [Performance and technology](#)
- [Tools and creativity](#)
- [Back to the Linux Audio world](#)
- [A multitude of viewpoints](#)
- [Current challenges and contexts](#)
- [Acknowledgements](#)

In the current “popular” computer environment we see a shift to mobile computing - the fashion of “apps”. With questions of freedom and privacy (app-store lockin, remote control over devices, big data) - which also start to affect computing on personal computers.

DIY culture with open source hardware platforms such as BeagleBoard, Raspberry Pi, and so on.

It is important that we welcome these new users of the Linux platform for audio, not only as users, but also as developers and members of our community. We've got this far by having an open culture of not only sharing the software for free, but also giving free access to how we do stuff and open discussion.

Acknowledgements

- Introduction This year's LAC organizers for inviting me
- Performance and technology
- Tools and creativity Aymeric Mansoux and Marloes Valk for compiling and editing FL OSS+Art (2009, goto10) - and the authors of the various articles in that collection.
- Back to the Linux Audio world
- A multitude of viewpoints
- Current challenges and contexts
- ▷ Acknowledgements

Acknowledgements

- Introduction This year's LAC organizers for inviting me
- Performance and technology
- Tools and creativity Aymeric Mansoux and Marloes Valk for compiling and editing FLOSS+Art (2009, [goto10](#)) - and the authors of the various articles in that collection.
- Back to the Linux Audio world
- A multitude of viewpoints
- Current challenges and contexts
- ▷ Acknowledgements And all of you - for listening, for creating the software I use on a daily basis, and for the discussions and exchange of ideas in the next days to come.